Camile Products Roadmap
October 2009

With the recent acquisition of the Camile Hardware and Software business from Biotage AB, we have been contacted by several customers asking about our development plans for the product line. In order to address these questions in a concise and consistent manner, this document has been prepared to describe our vision of the path forward. As business conditions change, the priorities of the projects described herein will doubtless also change. As such, this should be considered a living document that will be revisited and updated periodically. The roadmap is divided into short-term plans we intend to address in the next 1-2 quarters and long-term plans that are more open to discussion and analysis at this time.

Short-Term Plans

Support for Newer Operating Systems

The CamileTG software (version 5.x) is currently tested and validated for operation under the Windows 2000 and Windows XP operating systems. While Windows Vista has been on the market for almost two years, it has not seen wide adoption in the corporate environment. Windows 7 was recently released and is expected to see much more widespread corporate use. We have been using both Windows Vista and Windows 7 (beta) internally for many months and have done some preliminary testing of the CamileTG software under both operating systems. While no significant issues have been discovered to date, we still need to run the software through formal installation, functional, and stress testing under both operating systems. This testing will be one of our first priorities as we bring our Camile operations up to speed.

Support for New Camile Connections Modules

The manufacturer of the Camile Connections hardware has added several new IO modules in recent years that are not currently supported by the CamileTG software. We will begin investigating support for these new modules within the next few weeks, although we do not expect this to require a large development effort. Hopefully, we will be able to offer such support within 3-6 months. Some of these new modules that we believe will be of interest to Camile users are:

- 32-channel Digital Input and Digital Output modules – Rather than the 4 channels currently available on each digital input or digital output module, these new modules allow the user to connect up to 32 channels on each module. On larger systems, this higher-density IO could eliminate the need for an additional rack and brain. The primary disadvantage is that a separate terminal board is required for landing the field wiring. This terminal board is then connected to the module via a ribbon cable.

- <u>8-channel Analog Input Modules</u> – Higher-density input modules available for current loop inputs or voltage inputs. No external terminal board is required.
- <u>32-channel Analog Input Modules</u> – Higher density input modules available for current loop inputs or voltage inputs. Like the 32-channel digital modules, an external terminal board is required.
- <u>Load Cell Input Modules</u> – These modules allow load cells and strain gauges to be connected directly to the input module and provide 10 VDC excitation voltage. Currently, load cells connected to the system require external excitation and some means to compensate for any drift in the excitation voltage.
- <u>pH/ORP Input Modules</u> – These modules allow pH and oxidation reduction potential (ORP) probes to be connected directly to the module via BNC connectors.
- <u>Current Loop Input Modules with Loop Sourcing</u> – These modules provide 2 channels of isolated current loop input, with the 24VDC loop source applied directly to the input module. These can address problems with interacting input and output signals in devices such as certain temperature baths and mass flow controllers.
- <u>Current Loop Output Modules with Loop Sourcing</u> – These modules provide 2 channels of isolated current loop output, with the 24VDC loop source applied directly to the module. As with the loop sourcing input modules, these will be most useful for devices with both input and output current loops that tend to interact.
- <u>8-channel Thermocouple Input Modules</u> – Higher density input modules for thermocouple input signals. No external terminal board is required.

Support for Legacy Camile Systems

We realize that there are many Camile systems based on the legacy chassis-based architecture that are still up and running. Converting to the Camile Connections hardware is not always an economically viable option, so we are committed to supporting these legacy systems when and where we can, and to easing the upgrade path when necessary. In addition to providing board repair services, we can also provide replacement power supplies, and will maintain an inventory of fully tested used/repaired boards and accessories as available.

Long-Term Plans

Support for New Camile Connections Brains

There has been some concern over the past year that the manufacturer of the Camile Connections hardware will discontinue production of the brain module, leaving the CamileTG software with no way to communicate with the IO modules. While the manufacturer has assured us that they do not plan to discontinue this product in the foreseeable future, most of their recent development effort appears to be focused on newer iterations of brain modules. These newer brains have more functionality, cost less, and in some cases support downloaded control code. We have already done some preliminary testing with these new brains and know two important things about them so far:

1) The current CamileTG software will not communicate directly with these brains at this time

2) The base communication protocol for the old brains and new brains is the same, so the modifications required to enable such communication should be limited in scope.

There is still a fair amount of work to be done to determine which of these brains we would want to support, and what sort of advanced functionality we would consider. Although we do not have specific development plans in place at this time, we will continue to investigate our options over the coming months.